

a mortality of 12%, while in a series of twenty-five cases not treated with leucocytic extract the mortality was more than double.

Lambert<sup>9</sup> treated a number of cases, most of them being erysipelas, with results which in his opinion warranted further trials.

Meinhard<sup>10</sup> in experiments upon thirty-nine rabbits and using four times the dose of pneumococcus necessary to kill these animals, showed a mortality for the control animals not treated with leucocytic extract of nearly 100% with recovery of almost 100% for treated animals, although some of these animals did not receive the extract until nearly forty-eight hours after the initial injection of pneumococcus. In these experiments was noted the typical fall of temperature and increase of appetite following the injections of the extract. A small amount of preservative was used for the first time in these experiments and shown to be of no harm to the potency of the extract. A further improvement was also made in the extract by adding a strong solution of sodium chloride to the extracted leucocytes, enough of this salt solution being added to make the extract of physiological salt solution strength. This was done as it had been shown that when the watery solution of the extract was injected it was very painful, while injections of physiological salt solution were not.

Reynolds,<sup>11</sup> reporting a series of nine cases of pneumonia with 100% recoveries, remarks: "A complete description of these cases represents a severe form of pneumonia running a full course with moderate temperature curve, scarcely noticeable delirium, comparative freedom from toxic effects on the kidneys, and terminating by crisis at the usual time.

Beside these cases reported leucocytic extract has been used with great success on the Pacific Coast for the treatment of lobar pneumonia, but as yet many of these cases have not been reported.

Reviewing these cases it is easy to see that leucocytic extract is of use in neutralizing bacterial poisons in the animal body, as evidenced by the fall in temperature, general lessening of toxic symptoms and decrease of central nervous system symptoms. It also in neutralizing these poisons gives the leucocytes a chance to recuperate and form new endolysins.

#### Bibliography.

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#### ITEMS OF INTEREST.

**PERTUSSIS VACCINE.**—The New York Department of Health appeals to the physicians of New York for a more extended use of vaccine in the treatment of pertussis. Most favorable results have been obtained with the prophylactic use of the vaccine (*Jour. A. M. A.*, Aug. 21, 1915, p. 724).

**MIXED VACCINES.**—There is no rational basis for the use of mixed vaccines. So far as infectious diseases, the etiology of which is known are concerned, they are caused by a single, specific organism, as for instance in diphtheria, tetanus, meningitis, typhoid fever. The mere presence of a multiplicity of organisms in cultures taken from an infected region is no sign that the symptoms are due to all the organisms. The use of the stock mixed vaccines of commerce is irrational because it is based on the conception that infections are caused by more than one kind of micro-organism;

it is harmful because it encourages superficial examination, slipshod diagnosis and routine treatment without individualization; it is unnecessary because, when the physician desires to use more than one vaccine, he can inject them separately or mix them at the time of injection (*Jour. A. M. A.*, Aug. 21, 1915, p. 719).

**URICISOL.**—The Council on Pharmacy and Chemistry reports that Uricisol (Uricisol Chemical Co.) is a mixture of well-known drugs, marketed with false claims as to therapeutic action, with misleading and meaningless statements as to composition and under a name which invites uncritical prescribing. Examination in the A. M. A. Chemical Laboratory showed Uricisol to be a solution containing a large amount of sodium phosphate (64.20 Gm. in 100 Cc.) with small amounts of lithium, nitrate, citric acid and glycerine, with probably some vegetable extract (*Jour. A. M. A.*, Aug. 14, 1915, p. 638).

**FORMAMINT.**—Formamint are throat tablets said to contain a compound of formaldehyde and milk sugar. In the United States it is advertised to physicians while in England the public is asked to use it for affections of many kinds. The Council on Pharmacy and Chemistry reports that false statements are made in regard to the composition of Formamint; grossly unwarranted claims are made for its therapeutic properties, and therefore its exploitation to the public is a public danger. The Council published the account of the exhaustive bacteriologic examination to call attention to the evils connected with Formamint and to the inefficiency of all methods of sterilizing the throat (*Jour. A. M. A.*, Aug. 28, 1915, p. 816).

**DUODENIN, ARMOUR.**—Duodenin, Armour (Armour & Co.) is said to be prepared from the glandular or epithelial layer and mucous lining of the hog duodenum and to contain the maximum amount of secretin and enterokinase in stable form. The Council on Pharmacy and Chemistry held that there is no evidence for the administration of secretin or enterokinase and that, so far as the available evidence goes, these substances are inactive when administered. The Council voted that Duodenin, Armour, be not further considered until evidence is submitted to show that there are conditions in which secretin or enterokinase are absent and that these substances may be utilized by the organisms if administered (*Jour. A. M. A.*, Aug. 14, 1915, p. 639).

**FISHER REMEDY.**—According to the A. M. A. Chemical Laboratory, Fisher Remedy, a nostrum sold for the treatment of syphilis (five capsules cost twenty-five dollars), is composed of mercury subsulphate (Turpeth mineral) and mercury with chalk (*Jour. A. M. A.*, Aug. 21, 1915, p. 733).

#### THE SO-CALLED NEW ANTISEPTIC.

Recently the newspapers have contained announcements of a new antiseptic or germicide that has proved, or is to prove, of great value in the treatment of the wounded in the present war. Credit for its discovery is given to Drs. Carrel and Dakin.

The antiseptic referred to is that which Dr. Dakin of the Herter Laboratory, New York—now serving as bacteriologist in a war hospital at Compiègne in France—announced in a paper read before the Académie des Sciences in Paris. It is made by the well-known process of adding sodium carbonate to a solution of chlorinated lime. The mixture is thoroughly shaken, and after half an hour the liquid is siphoned off from the precipitate of calcium carbonate and filtered through cotton. To this clear liquid, sufficient boric acid is added to make the preparation neutral or acid, the amount required being determined by titration with phenolphthalein. Such a solution was found to kill pus germs in two hours.

According to the British Medical Journal, about